

Simplifying Logarithms

$$\log_{\textcircled{2}} 8 = \square \leftrightarrow 2^{\square} = 8 \quad \text{check: } \log_2 8 = 3 \leftrightarrow 2^3 = 8$$

To what power do you raise 2 to get 8?

$$\log_5 25 = \square \leftrightarrow 5^{\square} = 25$$

$$\log_3 81 = \square \leftrightarrow 3^{\square} = 81$$

$$\log_4 16 = \square \leftrightarrow 4^{\square} = 16$$

$$\log_6 1 = \square \leftrightarrow 6^{\square} = 1$$

$$\log_2 \left(\frac{1}{8}\right) = \square \leftrightarrow 2^{\square} = \frac{1}{8}$$

$$\log 100 = \square \leftrightarrow ?^{\square} = 100$$

$$\log 1000 = \square$$

$$\log 0 = \square$$

$$\log(-10) = \square$$